

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte SHIGEKI MORI and  
TAKAKO NAKAJIMA

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Appeal No. 95-4812  
Application No. 08/170,839<sup>1</sup>

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HEARD: May 4, 1999

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Before JOHN D. SMITH, PAK, and KRATZ, Administrative Patent Judges.

JOHN D. SMITH, Administrative Patent Judge.

**DECISION ON APPEAL**

This is an appeal pursuant to 35 U.S.C. § 134 from the examiner's final rejection of claims 1-5.

The subject matter on appeal is directed to a toothpaste composition having excellent bactericidal activity and

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<sup>1</sup> Application for patent filed December 21, 1993.

excellent rheological properties (i.e., good paste-shape retention properties<sup>2</sup>). To achieve these improved properties, appellants' toothpaste composition includes a cationically-modified hydroxyethylcellulose having a particularly high molecular weight and a particular cationization degree as a thickening agent. Further details of the claimed invention are illustrated by appealed claim 1 which is reproduced below:

1. A toothpaste composition comprising:

(1) a water-soluble bactericide selected from the group consisting of pyridinium compounds, quaternary ammonium compounds and biguanide compounds in an amount of 0.001% to 5.0% by weight, based on the total weight of the composition;

(2) a cationically-modified hydroxyethylcellulose having an average molecular weight of 1,000,000 or higher in the hydroxyethylcellulose portion thereof and having a cationization degree of 0.05 to 0.5 mol/glucose in an amount of 0.5% to 5.0% by weight, based on the total weight of the composition;

(3) a surfactant selected from the group consisting of polyoxyethylene polyoxypropylene block copolymers and

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<sup>2</sup> Toothpastes exhibiting ideal rheological properties have non-Newtonian behavior known as "pseudoplasticity", i.e., the toothpaste stays in place until directed to spread by a physical force. See Ogawa, "Toothpaste formula retaining activities of cationic antimicrobials", Sunstar INC. This reference is referred to in the brief as "Document 2". See the brief at page 7. No publication date has been provided for the reference. Thus, its availability as prior art is uncertain.

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alkylolamide compounds in an amount of 0.5% to 13% by weight, based on the total weight of the composition; and

(4) a polishing agent of the non-silica type in an amount of 5% to 50% by weight, based on the total weight of the composition.

The references of record relied upon by the examiner are:

Stone et al. (Stone)	3,472,840	Oct. 14, 1969
Gallop et al. (Gallop)	5,176,901	Jan. 5, 1993

"The Pharmacy Act and the Drug Control Act with Related Statutes" (The Pharmacy Act), Commonwealth of Virginia, Department of Health Professions, Virginia Board of Pharmacy, chapter 34, Article I, General Provisions § 54.1-3401: Definitions, published July 1, 1993.

The appealed claims stand rejected under 35 U.S.C. § 103 as unpatentable over Gallop in view of Stone. We cannot sustain the stated rejection. Essentially for the reasons set forth in appellants' briefs, we agree with appellants that the combined teachings in the relied upon references are insufficient to establish a prima facie case of obviousness for the subject matter defined by the appealed claims. We add the following comments for emphasis.

According to the examiner, the critical ingredient of appellants' toothpaste composition, i.e., the claimed cationically-modified hydroxyethylcellulose thickening agent

component, is "mentioned by name" at column 3, line 17 of the Gallopo reference. This part of Gallopo does indicate that hydroxyethylcellulose (HEC) is a suitable nonionic thickening agent for Gallopo's toothpaste, but does not state that the HEC is cationically modified. Thus, we do not view this relied upon disclosure as a "generic disclosure" of the claimed cationically-modified<sup>3</sup> HEC thickening agent of appellants' composition. Further, we cannot subscribe to the examiner's statement that "each species encompassed by a generic disclosure is rendered prima facie obvious thereby" (answer, page 8). With respect to Stone, appellants point out that this reference contains no disclosure relating to the importance of the claimed ranges of molecular weight and cationization degree of the HEC which are essential for

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<sup>3</sup> Apparently, the most relevant disclosure in Gallopo regarding the claimed thickening agent component appears at column 3, lines 20-29 wherein suitable cationic thickening agents such as JR 30M, a "quaternary cellulose derivative", are mentioned. This material is described as a charged polymer "closely related" to HEC which has a molecular weight of 600,000. See Faucher et al (Faucher), "Influence of Surfactants on the Sorption of a Cationic Polymer by Keratinous Substrates", Union Carbide Corporation, Journal of Colloid and Interface Science, Vol. 55, No. 2, May 1976 referred to in this record as "Document 1".

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achieving the improved properties of appellants' toothpaste.  
Thus, absent appellants' disclosure, it is not apparent why  
one of ordinary skill in this art would have been led to use a  
cationically-modified HEC thickening agent having the  
molecular weight and cationization degree claimed in the  
Gallopato toothpaste.

The decision of the examiner is reversed.

REVERSED

JOHN D. SMITH	)	
Administrative Patent Judge	)	
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	)	
	)	
	)	BOARD OF PATENT
CHUNG K. PAK	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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	)	
PETER F. KRATZ	)	
Administrative Patent Judge	)	

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***Leticia***

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APJ JOHN D. SMITH

APJ PAK

APJ KRATZ

DECISION: REVERSED  
Send Reference(s): Yes No  
or Translation (s)  
Panel Change: Yes No  
Index Sheet-2901 Rejection(s): \_\_\_\_\_

Prepared: October 20, 2000

Draft      Final

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PALM / ACTS 2 / BOOK  
DISK (FOIA) / REPORT